International Journal of Biometeorology

Journal of the International Society of Biometeorology

edited by

W. H. Weihe Editor-in-Chief S. W. Tromp Managing Editor

R. W. Gloyne Assistant Editor

Volume 11 1966 7

CONTENTS OF VOLUME 11

1

191

195

NUMBER 1 - March 1967

Climatic Classifications and Their Terminology. F. Prohaska

The Geographical Application of Some Selected Physio-Climatic Indices

to Africa. W.H. Terjung	5
Wet-Bulb Temperature and Discomfort Index Areal Distribution in Mexico. E.Jauregui and C.Soto	21
Objective Evaluation of Wind Chill Index by Record of Frostbite in the	
Antarctica. 0. Wilson	29
Insect Population Quality and Meteorological Conditions. S.Iwao	33
The Effect of Humidity on Growth and Feed Conversion of Broiler Chickens. P.N.Winn and F.F.Godfrey	39
Survival of Newborn Rats at 4,350 m Simulated Altitude. C.M.Blatteis	51
On the Importance of Radiation Exchange in the Amelioration of Thermal Stress in Enclosures. H.Buchberg and J.Naruishi	59
The Mechanisms of Oxygen Toxicity as a Model for Interpreting Certain Biometeorological Phenomena. E.M.Roth	79
The Role of the Skin in Negative Feedback Regulation of Eccrine Sweating. R.W.Bullard, M.R.Banerjee and B.A.Mac Intyre	93
Blood Sedimentation Rate Patterns in The Netherlands During the Period 1955-1965. S.W.Tromp	105
Association of Allergic Bronchial Asthma with Certain Air Pollutants and Weather Parameters. H.J.Paulus and T.J.Smith	119
Reports and News	
Japanese Society of Biometeorology. Fifth Report. Symposium on Physiology at High Altitude, Nagoya, 3 November 1965. H.Kita	129
NUMBER 2 - July 1967	
In Memoriam W.R. van Wijk. A.J.W.Borghorst	21.7
	143
Distribution of Effective Temperature over the Surface of the Earth. M.Gregorczuk and K.Cena	145
Meteorological Factors Affecting Physical Comfort(with Special Reference to Alice Springs, Australia). C.E.Hounam	151
Bioclimatic Orientation Method for Buildings.V.Olgyay	163
The Fate of Light Air Ions in the Respiratory Pathways. I.Pavlik	175
The Influence of Unipolar Air Ions on the Electrophoretic Mobility of Erythrocytes. M.S.Sinaya	187

The Effect of Inhalation of Air Ions on the Electro-Chemical Properties of Blood During Exsanguination and Recovery of Cats. T.R.Kusmina

Indicated Biological Effect from the 9 July 1962 High Altitude Nuclear

Test. W.C. Levengood

Zum Mikroklima der Pflanzengesellschaften in der Westtatra.R.Intribus	201
Age and Heat Tolerance in Sheep. C.J.Thwaites	209
Reproductive Status and Adrenal Size in the Northern Red-Backed Vole in Relation to Season. J.A.Sealander	213
in heration to beason, o.A. bearanter	21)
Reports and News	
the second secon	001
Sixth Report from the Japanese Society of Biometeorology. H.Yoshimura	221
First International Biometeorological Conference of the Middle East Laklouk, Lebanon, 31 March-6 April 1966. S.W.Tromp	227
FAO/UNESCO/WMO Agroclimatology Survey of a Semi-Arid Area South of the Sahara	231
Book Reviews	237
NUMBER 3 - November 1967	
Cooperation Between WHO and ISB	239
In Memoriam Václav Novák	241
Studies on the Mechanisms of Resistance to Hypoxia.A Review.Z.I.Barbashova	243
Adaptive Cycles: Their Significance for Defining Environmental Hazards. J.Aschoff	255
The Effect of Unipolar Positively Ionized Air on the Course of Coccid- ioidomycosis in Mice. A.P.Krueger and H.B.Levine	279
Conditioned Gonadal Response of Japanese Quail to Cyclic Photoperiod. W.O.Wilson and T.D.Siopes	289
Prolonged Heat Stress and Wool Growth in Sheep. C.J.Thwaites	297
Mathematical Approaches to Decompression. H.R.Schreiner	301
Thirst and Artificial Heat Acclimatization in Man. J.E.Greenleaf, L.G. Douglas, J.S.Bosco, M.Matter Jr. and J.R.Blackaby	311
Synoptic Aspects of Mortality. A Case Study. D.M.Driscoll and H.E.Landsberg	323
Estimation of Solar Radiation Environment. W.L.Roller and R.F.Goldman	329
Reports and News	
	777
Colloquium on Weather and Life, Corvallis, Oregon, 28-29 April 1967	337
Texas A & M University, Society of Biometeorology	339
The Work of the Mammals Research Institute at Bialowieza, Poland International Activities in Human Biology	339 343
Conference on Agricultural Meteorology, Ottawa, Canada, 21-23 May 1968	345
Biophysics of Plant Systems. International Symposium, Quedlinburg, DDR,	7.7
28-30 May 1968	345
Conference on the Resources of the Biosphere	346
Book Reviews	351

AUTHOR INDEX

Akutsu, K. 133 Asahina, K. 137 Aschoff, J. 255 Baier, W. 237, 238 Banerjee, M.R. 93 Barbashova, Z.I. 243 Bernett, P. 351 Blackaby, J.R. 311 Blatteis, C.M. 51 Borghorst, A.J.W. 143 Bosco, J.S. 311 Buchberg, H. 59 Bullard, R.W. 93 Cena, K. 145 Douglas, L.G. 311 Driscoll, D.M. Godfrey, F.F. 39 Goldman, R.F. 329 Greenleaf, J.E. 311 Gregorczuk, M. 145 Hesse, W. 237 Hirai, K. 225 Hosomi, A. 224 Hounam, C.E. 151 Ikegami, H. 139 Imai, S. 221 Intribus, R. Ishizaki, T. 224 Jáuregui, E. Jwao, S. 33 Kamiyama, K. 224 Katayama, K. 223, 223 Katayama, Y. 225 Kauker, E. 238 Kawakami, M. 225 Kikuchi, M. 224 Kita, H. 129 Kito, H. 224 Kobayahi, S. 225 Krueger, A.P. 279 Landsberg, H.E. 323, 351 Laue, R. 237 Levengood, W.C. 195 Lewine, H.B. 279 Lowry, W.P. 337

Mac Intyre, B.A. 93 Makino, S. 224 Matter, Jr. M. Maurer, G. 351 Mitsudera, M. 225 Momiyama, M. 223, 223 Moos, W.S. 238 Naruishi, J. 59 Negoro, H. 225 Nemoto, 0. 224 Noack, C. 237 Ohara, K. 221 01gyay, V. 163 Olszewski, J.L. 339 Oshima, Y. 224
Pavlik, I. 175
Paulus, H.J. 119
Prohaska, F. 1 Reiter, R. 238 Robertson, G.W. Robinson, S. 221 Roller, W.L. 329 Roth, E.M. 79 Schreiner, H.R. 301 Sasaki, T. 222 Satake, T. 129 Sealander, J.A. Sinaya, M.S. 187 Siopes, T.P. 289 Slomka, J. 339 Smith, T.J. 119 Soto, C. 21 Sugiura, Y. 133 Takahashi, K. 225 Tasunuma, H. 222 Tatsunuma, H. 140 Terjung, W.H. 5 Thwaites, C.J. 209, 297 Tromp, S.W. 105, 227 Watanabe, G. 223 Weihe, W.H. 238, 352 Wilson, O. 29 Wilson, W.O. 289 Winn, P.N. 39 Yamaoka, S. 225 Yoshimura, H. 221, 225

```
Accidents, traffic 223
Adrenals, red-backed vole 213
Africa, physio-climatic indices 5
Agricultural meteorology, conference 345
Agroclimatology survey 231
Air ions 175, 187, 191
         effect on coccidioidomycosis 279
Air pollution 119
Alice Springs 151
Altitude, man at work 133
         simulated 51, 222
Antarctica, frostbite 29
Apoplexy 223
Asthma, bronchial 119
       Tokyo 224
Biometeorological conference, Lebanon 227
Biometeorological phenomena 79
Biosphere, conference 346
Blood, electro-chemical properties
      sedimentation rate 105
Book reviews 237
Brown fat, rats 225
Buildings, bioclimatic orientation method 163
Cats 191
Chicken, effect of humidity
Circadian rhythm. 222, 235
Classification, climatic 1
Cold 221
     effect on brown fat 225
Conference, agricultural meteorology 345
            biosphere 346
            biometeorological, Middle East 227
            plant systems 345
           weather and life 337
Cycles, adaptive 255
Decompression 301
Discomfort index, Mexico 21
Earth, distribution of effective temperature, 145
Ecology 225
Effect, biological, nuclear test 195
Effective temperature 145
Electroencephalogram
                      man 139
                           225
                      rats
Environment
            224
            hazards
                     255
Erythrocytes, electrophoretic mobility 187
Factors, environmental 225
        meteorological 151
        weather 224
FAO/Unesco/WMO Agroclimatology survey 231
Forest, costal pine 225
Growth, chicken 39
Heat 221
     acclimatization, man
                           311
      tolerance 221
      tolerance, sheep
                        209
Human biology 343
```

```
Humidity, effect on growth 39
Hypoxia, effect on EEG 139
        man 129
         rabbit 137
         resistance 243
IBP 343
In memoriam Václav Novák 24
           W.R. van Wijk 143
Index, discomfort 21
      physio-climatic, Africa 5
       wet-bulb temperature 21
       wind chill 29
Insect population 33
Japanese quail 289
Japanese Society of Biometeorology
                                  129, 221
Light, response time of man 224
Mammals Research Institute, Poland
Man, circadian rhythm 222
    hypoxia 129
Methods, research 140
Mexico, climatic indexes 21
Microclimate 201
Mortality, seasonal fluctuation 223
          synoptic aspects 323
Mouse, coccidioidomycosis 279
Netherlands, blood sedimentation rate. 105
Nuclear test 195
Oxygen toxicity 79
uptake 133
Photoperiod, cyclic 289
Physical comfort 145, 151
Plants 201
Plant Systems, conference 345
Quail, Japanese 289
Rabbit, hypoxia 137
Radiation, solar 329
          thermal stress
Rats, liver temperature 224
     newborn 51
Red-backed vole 213
Resistance, hypoxia 243
Respiratory pathways 175
Sahara 231
Season 223
        effect on reproduction 213
Sensitivity, psychological 221
Sheep 209
       heat stress 297
       wool growth
                   297
Skin, sweating 93
Stress, heat 297
        thermal 59
Society of Biometeorology, Japanese 129, 221
                           Texas A & M University 339
Sweating 93
Tatra 201
Temperature, effect on vascular hunting reaction 225
             liver, rats 224
             wet-bulb index, Mexico 21
```

Terminology, climatic classification 1
Texas A & M University Society of Biometeorology 339
Thirst, man 311
United States of America, mortality 223
Vascular hunting reaction 225
Weather, asthma 119
colloquium 337
WHO 230

WHO 239 WMO 231

